CALIFORNIA GEOLOGICAL SURVEY
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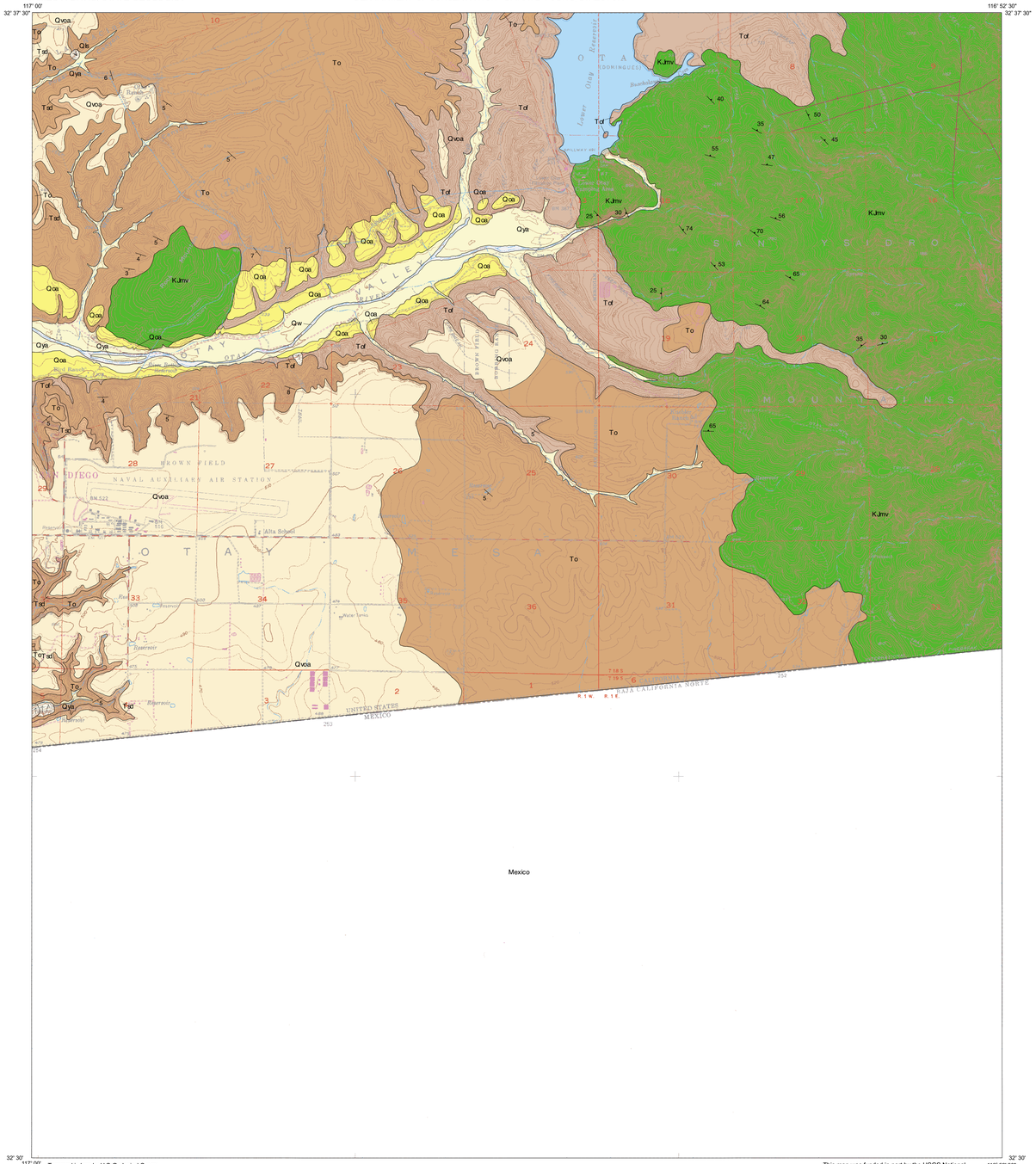
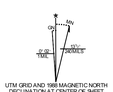
DEPARTMENT OF CONSERVATION - DARRYL YOUNG, DIRECTOR

Prepared in cooperation with the U.S. Geological Survey



Topographic base by U.S Geological Survey
7.5' Otay Mesa Quadrangle
Polyconic projection, contour interval 20 feet,
dotted lines 10 feet.



UTM GRID AND 1999 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Scale 1:24,000

0 .5 1 2 Miles
0 .5 1 2 Kilometers
0 1 2 Thousand Feet

This map was funded in part by the USGS National Cooperative Geologic Mapping Program, STATEMAP Award no. 01HQAG0092.

DEPARTMENT OF CONSERVATION
California Geological Survey

GEOLOGIC MAP OF THE OTAY MESA 7.5' QUADRANGLE SAN DIEGO COUNTY, CALIFORNIA: A DIGITAL DATABASE

by
Siang S. Tan and Michael P. Kennedy

Digital Preparation by
Kelly Corriea and Sybil Jorgensen
2002

USGS
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CORRELATION OF MAP UNITS

Qw, Qya, Qls	Holocene	QUATERNARY	CENOZOIC
Qoa	Pleistocene		
Qvoa			
Tsd	Pliocene	TERTIARY	
To, Tof	Oligocene/ Miocene		
KJmv	CRETACEOUS		MESOZOIC
	JURASSIC		

MAP SYMBOLS

- Contact between map units.
- Air photo lineaments that define major joints. No significant evidence of faulting has been observed along these features.
- 9 — Strike and dip of inclined sedimentary beds.
- 25 — Strike and dip of foliation in metavolcanic rocks.
- Landslide (Qls) - arrow(s) indicate principal direction of movement, outline includes headscarp of landslide.

DESCRIPTION OF MAP UNITS

Qw Late Holocene active channel and wash deposits; unconsolidated sand, silt, gravel and clay. Deposits along smaller drainage channels are included in Qya.

Qya Holocence alluvial deposits; unconsolidated to poorly consolidated silt, clay, sand and gravel. Includes modern active sedments along small drainage channels.

Qls Landslide deposits (Holocene and Late Pleistocene); landslide slump and rock fall deposits. On map, the deposit is depicted by landslide arrows (see "MAP SYMBOLS")

Qoa Alluvial deposits (late to middle Pleistocene); moderately consolidated, poorly sorted flood plain deposits consisting of gravelly sandy silt and clay.

Qvoa Alluvial deposits (middle to early Pleistocene); well consolidated, poorly sorted flood plain deposits consisting of gravel, sand, silt and clay.

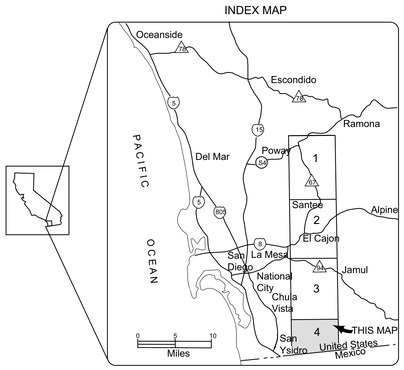
Tsd San Diego Formation (Pliocene); poorly indurated, fine- to medium-grained sandstone, typically yellowish light brown.

To Otay Formation (Oligocene to Miocene); poorly indurated massive light-colored sandstone, siltstone and claystone, interbedded with bentonite lenses.

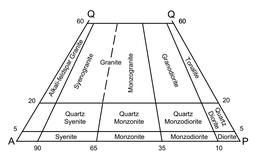
Tof Otay Formation-fanglomerate facies (Oligocene to Miocene); poorly cemented bouldery conglomerate and coarse-grained sandstone. Interfingered with overlying To.

KJmv Metavolcanic rocks (Jurassic and Cretaceous); mildly metamorphosed volcanic, volcaniclastic and sedimentary rocks. Volcanic rocks range from basalt to rhyolite, but are predominantly andesite and dacite. In general, metavolcaniclastic rocks are most abundant.

INDEX MAP



1. San Vincente Reservoir quadrangle
2. El Cajon quadrangle
3. Jamul Mountains quadrangle
4. Otay Mesa quadrangle



Classification of plutonic rock types (from IUGA, 1973, and *Streckeisen, 1973).
A, alkali feldspar; P, plagioclase feldspar; Q, quartz.

*Streckeisen, A.L., 1973, Plutonic rocks--Classification and nomenclature recommended by the IUGA Subcommission on Systematics of Igneous Rocks: Geotimes, vol.18, pp.26-30.

REFERENCES

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